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FIRST-LINE SUPERVISORY SELECTION

in the Federal Government

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A Report to the President
and the Congress of the United States
by the U.S. Merit Systems Protection Board

THE CHAIRMAN



U.S. MERIT SYSTEMS PROTECTION BOARD
1120 Vermont Avenue, N.W.
Washington, D.C. 20419

June 28, 1989

Sirs:

In accordance with the Civil Service Reform Act of 1978, it is my honor to submit this U.S. Merit Systems Protection Board (MSPB) report titled "First-Line Supervisory Selection in the Federal Government."

Because they are responsible for providing the front-line management of most Government functions, first-line supervisors are key to ensuring that efficient and effective use is made of the Federal work force. Recently, MSPB studied the methods and effectiveness with which Federal agencies fill these critical supervisory positions. This report summarizes the findings of the study.

I think you will find this report useful as you consider issues concerning management of the Federal work force. You may be particularly interested in the description of how Federal agencies typically select individuals for the pivotal job of first-line supervisor. Also, some innovative selection strategies being used by a few agencies offer the prospect for improved supervisory selection, which in turn can potentially enhance work force management and productivity.

Respectfully,

Daniel R. Levinson

The President
The President of the Senate
The Speaker of the House of Representatives

Washington, DC

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OVERVIEW

How critical is the role of Federal first-line supervisors? They are responsible for providing the front-line management of most Government functions, and are key to ensuring that efficient and effective use is made of the Federal work force (one of the merit principles governing the civil service system). The U.S. Merit Systems Protection Board (MSPB) is very interested in determining how effectively Federal agencies fill these positions. Recently, the Board studied first-line supervisory selection systems in the Federal Government to determine whether agency needs are being met. The study focused on identifying typical Federal supervisory selection practices as well as alternative approaches to supervisory selection.

The study revealed that:

- Because of the diversity throughout the Federal sector in the work performed, organizational environments, and agency missions, it is highly unlikely that any one strategy for selecting first-line supervisors will be totally effective in meeting all needs.
- Currently, Federal agencies use few different or innovative systems tailored specifically for selecting first-line supervisors. For the most part, agencies select individuals for first-line supervisory positions using a process identical to the one they use for all other types of jobs.
- At two representative sites MSPB visited, where the typically used system is in operation, managers are generally satisfied that it meets their needs. However, data from an MSPB questionnaire survey and other sources caution against concluding that the typical strategy is always effective.
- Of the agencies which said they use the typical system, one out of four also indicated that their organizations need better methods for identifying candidates for first-line supervisory positions.
- The selection strategy typically used by most agencies may not be adequate for meeting selection needs in all situations. A few agencies have in fact developed alternative selection strategies which can deal effectively with the needs arising from these situations.
- OPM has not evaluated Governmentwide experience with the CSRA requirement that all new first-line supervisors serve a probation period as the final step in the total selection process.

This report recommends that:

- Agencies take a much closer look at their own supervisory selection strategies and determine if they are adequate for meeting their individual selection needs. Those agencies that are experiencing organizational problems which may be related to the quality of their supervisors are especially encouraged to consider alternative selection methods.
- OPM undertake a thorough evaluation of the use of supervisory probationary programs by Federal agencies.
- OPM exercise leadership in identifying and disseminating information about effective alternatives in the critical area of supervisory selection.

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INTRODUCTION

WHY MSPB STUDIED SUPERVISORY SELECTION

Imagine a job in which you are expected to motivate others to the highest levels of productive and efficient performance in pursuit of the organization's goals, yet, at the same time, be concerned with the unique needs of those whose performance you are supposed to motivate, even when those needs are sometimes in conflict with the overall goals of the organization. Impossible task? For over 160,000¹ Federal employees who occupy the position of first-line supervisor, this scenario is played out every day on the job.

In every agency, the role of first-line supervisor is critical. Because first-line supervisors are responsible for providing the front-line management of most Government functions, these individuals are key to ensuring that efficient and effective use is made of the Federal work force (one of the merit principles governing the civil service system). Not only are they responsible for assigning, directing, and evaluating the work of subordinates, but, as the link between employees and upper management, they must communicate the organization's mission and goals to employees in a meaningful way that will motivate them toward effective performance. The most challenging aspect of this position may be that even though the supervisor is familiar with the technical work of the unit, the supervisory duties which are so critical to the organization's performance are often completely foreign to new supervisors. Thus, the part of the job which is most critical from an organizational standpoint is also the most difficult for a new supervisor to perform.

¹ Source: U.S. Office of Personnel Management, extracted from the September 1987 "Current Status Report" for all agencies except the U.S. Postal Service

Unfortunately, such a scenario is rife with potential for error. Mistakes made by supervisors are potentially much worse and more costly than those made by nonsupervisory employees. Undeniably, first-line supervisors are central to getting the maximum effort from their work groups. The actions they take, whether positive or negative, are amplified through their subordinate staffs. Consider the effects that a supervisor who performs poorly can have on the work group as a whole:

- Low morale among subordinates
- Low productivity of work group
- Low quality products or services
- Frequent grievances or complaints by subordinates or clients
- High absenteeism or turnover by subordinates

Even if an organization tries to improve a deficient supervisor's performance through remedial training,² the organization still endures some short-term, if not permanent, negative effects. Clearly then, an organization must pay attention to how well its supervisory selection system is working; there is too much at stake to tolerate a selection system which is not helping to identify high performers for those key jobs.

Because of the critical role first-line supervisors play in organizations, the U.S. Merit Systems Protection Board (MSPB) is very interested in determining the effectiveness with which Federal agencies fill these positions. Recently, MSPB studied white-collar

² In his book "Improving Supervisors' Effectiveness," Jack J. Phillips observes that "(t)raining can compensate for some deficiencies, but a few employees will never be effective as supervisors, no matter how much training they receive***at best it can bring slightly below average employees up to satisfactory levels." (Jossey-Bass, 1985, p. 30.)

first-line supervisory selection systems in the Federal Government to determine whether critical needs are being met in this area. To meet our study objective we focused on identifying typical supervisory selection practices as well as innovative approaches to supervisory selection, rather than on assessing the legal or regulatory correctness of individual selection actions.

HOW SUPERVISORY SELECTION DIFFERS FROM NONSUPERVISORY SELECTION

Selecting an employee for his or her first supervisory job can be a formidable challenge because it requires assessing that individual's potential for performing tasks often unlike those the employee previously performed. Also, there is no one model of supervisory performance to use as a standard in all situations.

The challenge of assessing applicants' "supervisory potential" is well known to Federal personnel practitioners. For the most part, there is little operational guidance on Federal supervisory selection. General guidance provided for filling all types of Federal jobs focuses on evaluating applicants' prior training and experience to predict future performance. While this approach may provide accurate predictions of performance for many types of jobs, using it to evaluate first-time applicants for first-line supervisory jobs is more problematic. This is because much of the work performed in the supervisory job is very different from that done in the nonsupervisory job, yet the training and experience information for first-line supervisory job applicants is typically based on their previous nonsupervisory jobs. In short, the problem for those evaluating applicants for first-line supervisory jobs becomes how to assess a person's ability to perform certain types of duties if she or he has never had the opportunity to demonstrate such abilities before. Later in this report, we discuss how a few agencies have developed strategies for assessing the knowl-

edge, skills, and abilities of applicants for supervisory jobs without the reliance on information about their training and experience.

In addition to problems associated with relying on previous training and experience to evaluate candidates, there is also the problem of identifying which particular knowledge, skill, or ability to assess to answer the question of what constitutes "supervisory potential." If a single model of an ideal supervisor existed, it would be possible to develop a standardized approach for assessing what supervisors need to perform successfully. However, "good" supervision is situational, inasmuch as characteristics, expectations, and values of the individual organization help determine what is effective. Therefore, while each supervisory job generally requires a combination of technical and leadership proficiency, specific skills, knowledge, or abilities and their relative importance can vary widely. Our review of agencies' practices revealed that some agencies have made a concerted effort to systematically identify appropriate skills, knowledge, abilities, or other criteria for use, as well as the best mix of technical and supervisory competencies.

HOW WE CONDUCTED THE STUDY

To begin our review of supervisory selection in the Federal Government, we asked the 22 largest Federal agencies to provide us information about any methods, techniques, forms, or systems they currently use in selecting white-collar (GS/GM) first-line supervisors. Eighteen agencies provided information in response to our request.³ From

³ We received information from the Departments of Agriculture, Air Force, Army, Commerce, Education, Energy, Health and Human Services, Interior, Justice, Labor, Navy, State, Transportation, and Veterans Affairs; General Services Administration; National Aeronautics and Space Administration; Small Business Administration; and the Office of Personnel Management.

materials submitted, it was clear that most agencies used the same general approach to supervisory selection. We selected for further study one agency's submission as representing this "typical approach" to supervisory selection. We also selected the four agencies' submissions that reflected innovative approaches to Federal supervisory selection, also to be examined more closely.

Our closer examination of the five agencies' programs involved collection of detailed information directly from both agency employees and agency records, and discussions with program officials. Agency records provided summary data concerning performance of supervisors selected under these programs. We conducted onsite structured interviews with a sample of first-line supervisors who had been selected under each system, and with each of their immediate superiors. This was done to obtain their perceptions on the operation of the system as well as on the performance of those selected under the system. For yet another perspective on the process, we administered written questionnaires to groups of nonsupervisory, subordinate employees, most of whom work for first-line supervisors we interviewed. Over 200 individuals participated in the interviews or employee questionnaire survey.

In the next section of the report, we present our findings from these efforts. First we describe the typical approach used by most agencies in selecting first-line supervisors and offer our assessment of how well that approach is working. We then describe situations agencies may face which call for strategies different from the typical assessment approach. In discussing these situations, we describe how the alternative strategies we examined may be useful in helping agencies to meet those special needs. These strategies are explained in further detail in appendixes 1 through 4. The advantages and disadvantages we discuss for each strategy are based upon experiences and opinions of interviewees in the studied agencies. Finally, we present recommendations for action by OPM and the agencies to improve Federal supervisory selection programs.

FINDINGS

HOW AGENCIES TYPICALLY FILL SUPERVISORY JOBS

Our survey of Federal agencies indicates that few different or innovative systems for selecting first-line supervisors exist. For the most part, agencies select individuals for first-line supervisory positions using a process identical to the one they use for all other types of jobs. The primary features of the typical selection system include the following:

- Job analysis is performed to identify the requirements of the job being filled.
- An individual job announcement is posted for each job as it becomes vacant.
- Interested individuals must submit an application form for each job as it is announced.
- Generally, determination of the best qualified applicants is based upon an assessment of each applicant's training and experience as they relate to the job requirements and is conducted wholly through review of written documentation (e.g., applicant's qualifications statement and supervisor's appraisal of the individual).
- When interviews are used in the process, they are of the selection, rather than the evaluation, variety. In other words, only those individuals who are in the

best qualified category are interviewed. Interview questions tend to be general rather than structured, and are not tailored in such a way that can be used to score the interviewee on specific job-related factors.

Our review of materials submitted by agencies revealed that there is an emphasis in the evaluation process on the assessment of technical, rather than supervisory, knowledge, skills, and abilities. Further evidence of the tendency of agencies to emphasize technical factors is provided by data recently collected in an MSPB survey of Federal personnel specialists. When asked whether their agencies emphasized competence in the technical area versus competence in supervisory skills and abilities in the selection of first-line supervisors, 42 percent reported that their agencies emphasize competence in the technical area. Only 10 percent report that competence in supervisory skills and abilities is emphasized most. Thirty-seven percent report that technical and supervisory competencies are emphasized equally. (The remaining respondents did not indicate the factors that are emphasized.) Perhaps these responses are not so surprising, in light of our previous discussion concerning difficulties found in evaluating candidates' supervisory competencies when they have not had the opportunity to demonstrate such abilities before.

Nonetheless, most agencies from which we received information indicated that some supervisory factors are used in the evaluation process. In fact, there exists much similarity among the supervisory factors used by agencies in their evaluation and selection of first-line supervisors. The following list depicts the supervisory evaluation factors most frequently cited by agencies submitting information:

ORAL COMMUNICATION

WRITTEN COMMUNICATION

ANALYTICAL ABILITY

*ABILITY TO GENERATE INNOVATIVE IDEAS
AND SOLUTIONS*

ABILITY TO ORGANIZE WORK

*KNOWLEDGE OF RESOURCE (HUMAN, FISCAL,
EQUIPMENT, SPACE) MANAGEMENT
PRINCIPLES*

*KNOWLEDGE OF SUPERVISORY/MANAGEMENT
TECHNIQUES*

INTERPERSONAL RELATIONS SKILLS

ABILITY TO TOLERATE STRESS

DECISIONMAKING ABILITY

LEADERSHIP

INITIATIVE

Thus, not only do most agencies tend to use the same basic approach to supervisory selection, they also use many of the same factors when evaluating supervisory potential.

HOW WELL DOES THE TYPICAL SYSTEM WORK?

ONE AGENCY'S PERCEPTIONS

Given that our initial findings showed most agencies are using the same type of selection strategy, we decided to take a closer look at how that strategy fared in a representative agency. We selected the Department of Veterans Affairs (VA) as a represen-

tative agency because its supervisory cadre represents a wide variety of occupations and grade levels, and its selection program includes all the representative aspects of the typical approach that most agencies reported they use. We visited two VA sites for our study, a Medical Center and a Regional Office and Insurance Center.

As noted previously, one way to assess the effectiveness of the selection system is to determine how well supervisors selected through the system are performing. We looked at supervisory performance (and the selection system) at the VA sites from a number of different perspectives. First of all, the VA managers we interviewed expressed general satisfaction with the selection system and believed that good candidates were referred to them for selection. These managers also indicated that the candidates selected had met their performance expectations once they got on the job. Most individuals whom we interviewed felt that they were adequately prepared when they entered their first supervisory job, but some said they would have been more comfortable if they had had supervisory training before being placed on the job.

We also collected information from the subordinates of supervisors selected through the system. For the most part, subordinates were satisfied with the performance of their supervisors, although they were not always as positive as the supervisor's superior had been. This discrepancy between the second-level supervisor's impressions of a selectee's performance and those of their subordinates is not surprising, given their differing expectations. (For example, where second-line superiors described some supervisors as effective because they were "tough," "no-nonsense," or "demanding," the supervisors' subordinates did not always universally agree with that viewpoint.) As yet another indicator of supervisory performance, we examined the performance appraisal records of supervisors who had been selected at the two sites, and found that all ratings for the 2 years after their selection were at least fully successful or better.

FIRST-LINE SUPERVISORY SELECTION IN THE FEDERAL GOVERNMENT

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The findings from our site visits at VA seem to recommend the "typical" approach to selecting supervisors. Nonetheless, despite the positive findings at the two sites we visited, there are other indicators which caution us from drawing the conclusion that this type of strategy is always effective in providing all agencies using this approach with the best supervisors available. Some of these other indicators are discussed in the following sections.

INDICATORS FROM AGENCY DATA

Even though the managers we interviewed at the VA sites are generally satisfied with the pool of candidates presented to them for selection, a number of agencies responding to our initial inquiry indicated that they need better methods for identifying candidates for first-line supervisory positions. This suggests to us that agency officials believe that there are greater numbers of higher quality individuals available for selection than are currently being identified.

Additionally, even though the performance appraisals reviewed certainly suggest that supervisors selected under the typical system are performing well, we are mindful that performance appraisals may not be entirely accurate indicators of the quality of supervisory performance. In fact, a 1988 MSPB study concluded that performance ratings being given to Government employees are, by definition, inflated.⁴

INDICATORS FROM THE SUPERVISORY PROBATION PROGRAM

A potentially useful indicator of how well the typical selection approach is working concerns the supervisory probation period. Data from agencies' experiences with supervisory probation can serve as

one very general measure of supervisory performance. All new first-line supervisors are required to serve a probation period as the final step in the total selection process. This requirement derives from the Civil Service Reform Act of 1978 (CSRA)⁵ and was imposed for two major reasons. First, those concerned recognized that the skills and abilities required of a supervisor are unique, and that all of them are not easily learned or developed while in nonsupervisory jobs. Since the best way to assess how well a person will perform in a job is to actually let him or her do the job, the new probationary period was launched as a means to permit an agency to apply this test period and judge the employee's performance before making the supervisory selection final.

Making personnel management more efficient and less cumbersome is the second reason the CSRA framers introduced supervisory probation. The probationary period provides a means to deal with unsuccessful performers without undue formality or hardship. Those who cannot successfully complete the probationary period because of deficiencies in supervisory or managerial performance must be returned to a nonsupervisory or nonmanagerial position. Generally speaking, the agency would place such an employee in a position which is no lower graded or lower paid than the one the employee left to accept the supervisory job. That probation was intended to be a final test of supervisory skills is underscored by the availability of other procedures for resolving problems with technical performance.⁶

⁵ 5 U.S.C. 3321.

⁶ In 1988, MSPB upheld an agency's removal of a new supervisor for deficiencies relating to his technical ability to perform the substantive portions of his position, and not his managerial or supervisory duties. In that case, MSPB determined that the agency was not under an obligation to return the employee to the grade from which he had been promoted upon entering his first supervisory position. *Stewart vs. Department of the Air Force*, 35 M.S.P.R. 622 (1988).

⁴ U.S. Merit Systems Protection Board, "Toward Effective Performance Management in the Federal Government," July 1988.

How do first-time Federal supervisors perform on this "final test?" To date, no comprehensive data are available to make a determination because OPM has not evaluated Governmentwide experience with the CSRA requirement. Furthermore, OPM has informed MSPB that it cannot compute an exact, Governmentwide failure rate for supervisory probationers, because data about the number of first-time supervisors are not captured in OPM's Central Personnel Data File (CPDF). However, because personnel offices use a unique authority code when employees are reassigned or changed to a lower grade when they fail to satisfactorily complete the supervisory probationary period, OPM can count how many individuals are included in this group. By comparing the number of employees who were coded in the CPDF as supervisor or manager as of September 1987, but were not similarly coded as of September 1986, OPM estimated the number of employees who might have been serving a supervisory probationary period during fiscal year 1987. Based on these data, they calculate a failure rate of two-tenths of 1 percent, or 2 failures for every 1,000.⁷

In light of the problems OPM found in trying to estimate a failure rate, this estimate is tenuous, at best. Therefore, until a more comprehensive examination of the supervisory probation program is undertaken by OPM, we do not believe that existing data can substantially support the notion that the typical selection strategy used is operating effectively.

INDICATORS FROM QUESTIONNAIRE SURVEYS

Another way to measure the effectiveness of the typical selection strategy is to look at subordinates' perceptions about their supervisors and supervisors' perceptions about their own performance. A 1986 MSPB survey⁸ provides some interesting insights

into how employees view their supervisors. Data from the survey indicate only one out of two (50 percent) respondents agree that their supervisor has good leadership qualities. (This contrasts notably with the nearly two out of three (65 percent) who say that their supervisor has good technical skills.) Even fewer than one out of two employees (46 percent) believe that their supervisor has organized the work group effectively to get the work done. Supervisors do receive better marks for effective two-way communication and fair treatment of subordinates (64 percent and 67 percent of employees, respectively, express these views concerning their supervisors). Nonetheless, the perceptions evidenced by the survey portray a workplace scenario that is quite different from the situation suggested by OPM where only 2 out of 1,000 supervisors perform less than satisfactorily during the first year of their supervisory assignment.

Another nationwide survey of more than 7,000 private and public sector supervisors concluded that the "****general suspicion**** that most supervisors muddle through**** is in part borne out."⁹ Fully 75 percent of the supervisors responding to the survey report that they feel overwhelmed by organizational communication and information needs and complain about the amount of paperwork they have to handle. Less than half consider themselves part of company management. Significantly, 21 percent of the first-level white-collar supervisors are unhappy and would return to the rank-and-file if they could do so without a pay reduction or loss of stature.

⁷ Source: U.S. Office of Personnel Management, Personnel Systems and Oversight Group, September 1988.

⁸ The 1986 Merit Principles Survey conducted by MSPB was an extensive survey of 21,620 Federal employees, designed to provide valid results for the entire full-time, permanent Federal work force regarding a variety of personnel management issues.

⁹ Bittel, Lester R., and Jackson E. Ramsey, "The Limited, Traditional World of Supervisors," *Harvard Business Review*, July-August 1982, p. 26.

Thus, these data, in addition to other indicators discussed above, lead us to believe that the selection strategy typically used by most agencies (i.e., one relying primarily on evaluation of previous training and work experience) may not be adequate for meeting selection needs in all situations. In the next section we describe some circumstances which call for the development and implementation of more innovative approaches to evaluation than that typically used by agencies. We envision that these circumstances are relatively commonplace in many agencies, and we describe how a few agencies have in fact developed alternative selection strategies to deal with the needs arising from these circumstances. One thing will become apparent as we describe these selection strategies: they all move away from inferring an applicant's skills or abilities based upon prior training and experience, to measuring them more directly through alternative methods.

WHEN ALTERNATIVE SELECTION STRATEGIES ARE NEEDED

JOBS REQUIRING A HIGH DEGREE OF TECHNICAL AS WELL AS SUPERVISORY EXPERTISE

Introduction. The first-line supervisor's job generally requires more emphasis on supervisory skills than technical skills. However, some first-line supervisory jobs require a greater degree of technical expertise than the norm. That is, the technical area to be supervised is so complex that the supervisor would need more than just a fundamental understanding of the technical aspects of the subordinates' jobs in order to carry out the supervisory duties of the job (e.g., assigning work to subordinates or evaluating subordinates' performance). In such cases, deficiencies in technical knowledge would drastically hinder the supervisor in performing the supervisory aspects of the job. While the typically used method may be sufficient for assessing this technical knowledge, what is needed is a system that can efficiently assess both supervisory and technical factors at the same time.

Written Knowledge Tests. Written knowledge tests such as the one developed and administered by the Department of Justice's U.S. Marshals Service (USMS), provide an opportunity to objectively measure candidates' knowledge concerning both technical and supervisory aspects of the job. The knowledge areas measured by the Marshals Service test were identified through job analysis as critical to performance of Supervisory Deputy U.S. Marshal jobs. The development of the test involved extensive input from individuals very knowledgeable of work requirements of the jobs being filled, as well as the specific kinds of knowledge required to carry out the duties of those jobs. In a law enforcement environment such as the Marshals Service, it is critical for first-line supervisors to have a thorough understanding of the myriad of laws and regulations governing the work performed by the work unit. Often, these supervisors must quickly provide advice and direction requiring knowledge of these laws and regulations, and mistakes made by not following the laws and regulations can potentially result in loss of life.

In addition to providing direct, objective assessments of applicants' technical as well as supervisory knowledge, written knowledge tests also have other advantages for agencies. For example, they are potentially easier to score than typical procedures used to evaluate documentation concerning applicants' training and experience; applicants perceive these measures as fairer than subjective assessments, since all applicants are scored the same way; and agencies can use data gathered from repeated administrations of these tests to determine their future training and development needs.

As with any method, however, there are some disadvantages to using written tests. Some applicants are simply not "test-takers," and perform poorly on written tests because of factors unrelated to their possession of the knowledge in question.¹⁰

¹⁰ Guion, Robert M., "Personnel Testing," McGraw Hill, 1965, p. 35.

Also, development and administration of such tests can be expensive (although costs incurred for "bad selections" of supervisors may be much greater in the long run). Finally, ascertaining that an applicant possesses a certain level of knowledge does not ensure that the applicant will apply that knowledge, once in the job. By the same token, however, even the traditionally used method cannot ensure that prior exposure to experiences requiring certain kinds of knowledge will result in the application of those kinds of knowledge in the new position.

Preplacement Training. Another possible strategy to help ensure that supervisors possess a certain level of technical and supervisory proficiency involves structured training prior to placement in the job. One agency using this approach is the Department of Labor's Mine Safety and Health Administration (MSHA). The strategy developed by MSHA requires all those selected as candidates for *Supervisory Coal Mine Inspector positions* to undergo an intensive 1-year training program prior to placement in the supervisory job. The approach MSHA uses includes training in specific technical topics as well as training in supervisory skills and subjects. The program uses centrally administered, formal classroom sessions as well as short-term job assignments in which participants work with an incumbent first-line supervisor. (Near the end of their training program, the candidates may also fill in as acting supervisors when a permanent supervisor is away from the office at training or for other reasons.) Throughout the course of the program, participants are formally tested to ensure they are acquiring the desired level of knowledge and skills.

Because such a program can be relatively costly,¹¹ it obviously would not be practical for all supervisory

selection situations. Even when the applicant pool is reduced by having employees compete for these "training" positions, a significant commitment of resources is still required to administer this type of training. However, if mistakes made by supervisors due to lack of knowledge or skill in the technical area are potentially very costly, the investment in such a training program might prove worthwhile. For example, MSHA Supervisory Coal Mine Inspectors must perform the final technical review for adequacy of ventilation plans for coal mines. If a deficient plan is approved because of a lack of technical expertise, the result could be a mine explosion or other disaster.

Also, if it is critical that either technical or supervisory knowledge be applied in a standard manner, a centralized training approach such as MSHA's program may prove very useful. Centralized classroom training with subsequent testing of participants' comprehension of the material ensures that all participants possess an acceptable level of knowledge about the subject in question. Furthermore, the training can help ensure that these future supervisors consistently apply the knowledge and skills, according to established standards. This is critical for an organization like MSHA, which has jurisdiction across the Nation through a network of districts, subdistricts, and field offices. Because a single mining company may have mines located in different States, if a supervisor's interpretation of the law in a company mine in one State conflicts with another supervisor's interpretation in a different State, serious questions could arise about the consistency of MSHA's regulation of mining activities.

JOBS IN STRESSFUL ENVIRONMENTS

Introduction. Because of the nature of the technical work performed in their units, some first-line supervisors work in especially stressful environments. The stress may be caused by such factors as the intensity or pace of the technical work, or the

¹¹ MSHA is fortunate in being able to instruct its supervisory candidates in its own fully staffed training facility, the National Mine Health and Safety Academy, in Beckley, West Virginia. The Academy primarily offers courses in various aspects of mine safety and health for MSHA's inspectors and for individuals from state and local government agencies, mine management, and labor organizations.

need for split-second decisions which may have safety (even life and death) implications. In these situations, one of the supervisor's most important functions is to minimize conflicts in order to keep the work flowing smoothly. Therefore, it is critical that the supervisor be especially adept at interpersonal skills and abilities in order to alleviate tensions among members of the group that might impede the group's performance. However, these interpersonal skills and abilities are notoriously difficult to measure reliably. By their very nature, interpersonal skills involve situations with both a sender and a recipient, and the effectiveness of their interaction depends on the recipient's perception of that interaction. In a sense, one cannot use an objective yardstick to measure these skills since they are truly subjective and really exist in the "eye of the beholder." Thus, trying to infer the effectiveness of an applicant's ability to interact effectively strictly from previous training and work experience, as is done with the traditionally used approach for assessing supervisory applicants, is often not successful.

Peer Rating Strategy. In an attempt to more directly assess supervisory skills and abilities, the Department of Transportation's Federal Aviation Administration (FAA) has adopted a strategy designed to evaluate applicants for certain supervisory jobs from the perspective of the subordinate. With this approach, applicants for FAA's Supervisory Air Traffic Controller jobs are given peer ratings (i.e., ratings made by other Air Traffic Controllers with whom they work) on supervisory skill and ability. The elements rated include (but are not limited to) interpersonal and communication skills and abilities. Applicants are shown only their composite scores and do not learn how individual peers have rated them. Since this strategy is based on the perceptions of those who have worked closely with the applicants under conditions widely recognized as stressful (i.e., air traffic control), users whom we surveyed agree that it can provide unique and useful insights concerning applicants' potential

to perform the supervisory job. Because the interpersonal skills involve interaction with others, a strategy which elicits opinions directly from those who have the greatest opportunity to interact with the applicants provides an effective approach for predicting future performance in a job requiring proficiency in interpersonal skills and abilities.

However, a potential disadvantage of a strategy using peer ratings is that the work force might perceive the selection process as reduced to little more than a "popularity contest." This perception may result in distrust of the system by employees and concern by them over the capabilities of supervisors who are selected. However, the use of peer rating forms which are based on very specific, job-related dimensions and which require ratings that are supported by examples of observed behavior can help ensure selections are based on applicants' actual performance rather than on general impressions of popularity. Also, by randomly selecting peers to make the ratings (or using some combination of random assignment and personal selection by the candidate), the ratings can be made more accurate and job-related.

JOB IN ORGANIZATIONS WHICH EMPHASIZE EMPLOYEE PARTICIPATION

Introduction. Many organizations appear to be increasingly interested in fostering a climate of participative management. Organizations may try to involve employees more in decisionmaking to improve employee-management relations, increase employee commitment and identification with the organization's goals, enhance the quality of organizational output (goods or services), or achieve other objectives.¹² Whatever the reasons for promoting

¹² In February 1986, President Reagan signed Executive Order 12552, to establish a comprehensive program for the improvement of productivity throughout all executive departments and agencies. An important aspect of that program, Total Quality Management (TQM), is encouragement of employee participation in the productivity improvement effort.

participative management, decisions concerning supervisory selections can become a primary focus for employee participation.

Peer Rating Strategy. The typical procedure for assessing candidates for supervisory positions offers little or no opportunity for subordinates to have a voice in the decision made. However, a strategy using peer ratings, such as the one used by FAA and previously described in the section on jobs in stressful environments, can give employees this opportunity. When employees are able to participate by providing input concerning qualifications of applicants for supervisory jobs, they are more likely to accept selections subsequently made. Fostering employee participation through peer ratings also helps communicate to employees that their input is important to management, a result that can enhance the working environment.

As discussed previously, there are potential disadvantages to the use of peer ratings. This strategy can actually hinder an organization's attempt to enhance its working climate if peer ratings are elicited in the selection process but aren't used in making the final decisions (e.g., a candidate who was consistently rated poorly by peers is nonetheless selected for a supervisory job). On the other hand, when employees see, over time, that their input is seriously considered by selecting officials, the organization stands to benefit in the ways discussed above.

JOB IN ORGANIZATIONS ANTICIPATING MAJOR TURNOVER IN SUPERVISORY RANKS

Introduction. Occasionally, an organization finds itself anticipating a major upheaval in the work force. This change may be due to modifications in the work performed (e.g., technological advances require the need for a new mix of skill or knowledge in employees), or cyclical changes in work force demographics (e.g., a large percentage of supervisors are nearing retirement age). In such cases, the

organization may have to intensify both its hiring efforts and its training efforts. Under normal conditions, first-line supervisors in most Federal agencies receive training after being placed in their new jobs. Sometimes this is not done in a timely manner and the new supervisors can wait as long as 1 year after placement before being trained. If a significant turnover is expected among current supervisors, a sudden dramatic increase in the number of new first-line supervisors can add significantly to an agency's supervisory training requirements and delay training even further. In turn, hiring or promoting a large number of first-line supervisors who will remain untrained for significant periods can be very disruptive and costly. Costs may involve:

- Loss in group productivity because the new supervisors have not developed skills for assigning and prioritizing subordinates' work;
- Loss in group productivity due to frustration on the part of subordinates when the new supervisors have not learned to handle the "people" part of the job;
- Increased grievances resulting from inappropriate administrative actions taken by new supervisors who are untrained in agency policies and procedures; and
- Increased turnover (of subordinates and supervisors) frustrated with the trial-and-error learning process that occurs in the absence of formal supervisory training.

Preplacement Training. In contrast to the typical selection program with its lack of supervisory training prior to placement, is the Mine Safety and Health Administration's program with its strategy of using preplacement supervisory training. Such a strategy-- which we discussed previously in relation

to jobs having extraordinary technical requirements-- can provide an efficient, cost effective alternative for post-selection supervisory training, especially when a large turnover is anticipated.

When MSHA was faced with a sizable turnover among its first-line supervisors, top management recognized that it needed a special effort to ensure a smooth transition of large numbers of employees into supervisory jobs. To spare itself some of the potential costs previously described, MSHA decided to provide training in critical supervisory skills (as well as technical knowledge) prior to placement on the job. In this way, the organization's new supervisors could "hit the ground running," making this significant turnover in their supervisory ranks as trouble-free as possible. While such an intensive training effort might not be economically feasible in all situations, in an organization trying to plan for significant changes in the work force, such a strategy can prove very prudent.

JOBS IN ORGANIZATIONS WITH A LARGE OR GEOGRAPHICALLY DISPERSED WORK FORCE

Introduction. The typical selection procedure uses job analysis to identify relevant skills or knowledge for individual supervisory jobs and announces vacancies for supervisory positions as they occur. Candidates interested in these positions must submit a separate application package (i.e., documentation concerning qualifications) for each position. This strategy is probably an adequate one when the work force is small enough in numbers and geographic dispersion is minimal enough to ensure that all interested employees learn of job vacancies and have adequate opportunities to apply. However, many agencies are so large or geographically dispersed that vacancies are not communicated to all interested employees in a reliable and timely manner. And, in these agencies, many employees learn of the vacancies too late to apply. Additionally, some agencies may have many similar jobs in one occupation. In these cases, applicants may

become frustrated at having to submit numerous application packages for vacancies requiring the same information. Also, many resources may be expended to conduct repetitive, separate job analyses for positions that are, in fact, very similar.

Centralized, Automated Referral System. A more efficient strategy for such situations is one which establishes standard evaluation criteria for related jobs (as determined through large-scale job analyses), and can be administered through a centralized, automated system. Such an approach could provide sound assessment of applicants' capabilities while proving efficient to operate. The Department of the Army has developed and implemented such a procedure, the Army Civilian Career Evaluation System (ACCES). ACCES is used to fill supervisory (and nonsupervisory) positions in many occupations at mid-level grades and above.

Through extensive job analyses, the Department of the Army identified inventories of evaluation criteria (knowledge, skills, or abilities--KSA's) relevant to groups of related jobs (a group of related jobs is referred to as a "career program" in ACCES). An employee interested in being considered for job referrals under ACCES only needs to submit one application package. This package contains descriptions of accomplishments, and self and supervisory ratings on evaluation criteria relevant to a specific career program. This information is stored in a central computer, and whenever a vacancy occurs of the type and location in which the applicant is interested, the applicant is automatically considered for the position.

An applicant does not receive an overall referral score or ranking after submitting an application package to ACCES, because a candidate's referral score and ranking may change with every vacancy filled. This is due to two aspects of the system: 1) the KSA's used in the evaluation process are weighted according to the particular requirements of each position applied for (and the applicant's

referral score is based on both the weights of the rating elements and the applicant's ratings on the elements), and; 2) the mix of applicants interested in positions will vary by location of the vacancies.

This type of strategy can be used to fill both supervisory and nonsupervisory jobs, but is especially effective for supervisory jobs. Supervisory jobs may vary greatly in terms of the relative importance of supervisory abilities versus technical knowledge, yet share numerous elements which are important as evaluation criteria. Therefore, an agency filling many supervisory positions would desire a selection strategy which systematically identifies important elements common to many supervisory jobs and allows tailoring evaluation criteria to the job being filled. A centralized, automated evaluation and referral system is particularly useful because of the ease with which inventories of job-relevant elements can be weighted to reflect the needs of the position being filled. If applicants submit ratings on an entire inventory of elements relevant to numerous supervisory jobs, (e.g., ratings which ACCES applicants submit for a career program), they can be considered automatically for any position in which they are interested, regardless of the particular elements identified as important for that job.

A centralized, automated referral system should enable an organization with a large, geographically dispersed work force to fill jobs more quickly and efficiently (e.g., with ACCES, referral lists are routinely processed in a single day). This type of strategy also offers positive benefits for applicants. Not only are they spared the work of having to submit new application packages with each vacancy (as they often must do with the traditional strategy), but they are automatically considered for jobs about which they otherwise might have been unaware.

As with any strategy, however, there are potential problems. As noted previously, an applicant's referral score may change with every position. This

can result in misunderstanding when an applicant is referred for one job, but not for another job even though both jobs may appear to the applicant to be identical. Failure of employees to understand how the system computes the referral scores each time can quickly lead to distrust of the entire evaluation and selection process. This distrust can only be alleviated through an extensive education of the work force concerning the operation of the referral system.

JOBS IN ORGANIZATIONS DESIRING TO IMPROVE THE REPRESENTATION OF WOMEN AND MINORITIES IN THE SUPERVISORY RANKS

Introduction. The traditionally used strategy for selecting first-line supervisors relies heavily on the evaluation of previous training and work experiences of applicants. However, because many occupational fields have been historically filled by white males, women and minorities by and large have not had the opportunities to acquire the training and experience deemed as desirable for supervisory positions which are generally at the higher grades in the occupation. Therefore, when a selection strategy uses previous work experience and training as a basis for evaluating skill or ability, women and minorities who have not had the same opportunities often find themselves at a great disadvantage (even though they may actually possess the skills needed for the jobs they seek). When the potential for this situation exists, a more appropriate selection strategy is one that doesn't rely on previous work experience and training but instead bases the evaluation of applicants' qualifications on actual demonstrations of present performance.

Simulation Exercises for Evaluating Performance. One strategy which evaluates present performance as opposed to past training and experience is the use of simulation exercises in the evaluation process. Although not specifically developed to increase the representation of certain groups in the supervisory work force, simulation

exercises are used by both the FAA and the USMS to select supervisors. With these simulation exercises, applicants are presented with scenarios depicting situations typically encountered in the supervisory job. Applicants must "size up" the situations presented, articulate the issues or problems involved, and take whatever actions they feel the situations call for.

The simulation exercises are designed to enable applicants to demonstrate performance on supervisory abilities such as oral communication, decision-making, and leadership. They rely on candidates' "on-the-spot performance" relevant to these abilities. Therefore, candidates aren't penalized in the evaluation process by a lack of prior opportunities to demonstrate their qualifications through work experience or training. This enables women and minority candidates to be evaluated along with nonminority male candidates more fairly and effectively, based upon present performance.

Simulation exercises have been used in different ways to enhance the evaluation process. For example, while the FAA uses simulation exercises as part of a skill-based interview, the USMS uses simulation exercises in an assessment center to select first-line supervisors. An assessment center is a method (not a place) that typically uses numerous simulation exercises to evaluate knowledge, skills or abilities in a variety of performance situations. Because it uses several simulation exercises, an assessment center can provide a more complete picture of candidates' supervisory skills than may be possible with other approaches.

The USMS assessment center consists of four different simulation exercises and a face-to-face interview. Because any candidate's performance can vary according to the situation presented, the opportunity for multiple observations of a candidate's performance increases the likelihood that a truer picture of the candidate will emerge. For

example, a candidate may be able to prepare and deliver a speech with great skill in one exercise, but have difficulty in giving performance feedback to a problem employee in another exercise. The opportunity to witness the candidate's "oral communication skill" in both of these situations should provide a more complete perspective on the applicant's potential than either of these two simulation exercises could provide alone.

There are numerous advantages possible with a selection strategy which uses simulation exercises, regardless of whether multiple exercises are included in an assessment center or exercises are used individually. In addition to alleviating biases associated with lack of opportunity to gain particular work and training experiences, simulation exercises can provide practical information to applicants for their own developmental purposes. For example, both the USMS and the FAA provide applicants with detailed feedback concerning their performance in the simulation exercises. This information emphasizes both strengths and weaknesses relative to the job-related factors evaluated in the exercises, and provides a firm basis on which applicants may pursue activities to improve in weak areas. Such feedback is rarely provided through traditional methods of evaluation for supervisory selection. In fact, with traditional methods, candidates often never even learn of selection decisions made, much less are provided information concerning why they were not selected. Such information could be useful for further development.

The primary disadvantage to the use of simulation exercises which has precluded many agencies from pursuing this approach is cost. The resource commitment required to develop and administer a strategy using simulation exercises can be substantial, at least initially. In order to provide reliable and valid assessments of applicants' potential for supervisory jobs, the exercises must be realistic to both the applicants and those making the evaluations. The development of realistic exercises

usually requires extensive involvement of subject matter experts (e.g., employees in jobs similar to those being filled, who are intimately familiar with the requirements of the jobs). Likewise, the administration of simulation exercises requires involvement of individuals well trained in the specific procedures used to evaluate candidates in these exercises. Since it is usually most efficient for organizations to train evaluators and administer simulation exercises in a central location, involvement of numerous employees in the development and operation of simulation exercises can incur significant travel and lodging costs, in addition to costs associated with the employees' absence from their regular jobs.

Nonetheless, applicants and evaluators involved in the use of simulation exercises (at least at FAA and the USMS) generally believe that this strategy represents a worthwhile investment of resources. Most candidates see the process as more objective and fairer than traditional evaluation methods, and useful for providing feedback critical to their further development. Evaluators perceive the exercises as an effective vehicle for candidates to demonstrate their potential for supervisory positions. Additionally, most second level supervisors and managers we spoke with believe such exercises provide more accurate measures of supervisory ability than traditional strategies which rely on inferences concerning previous training and experience.

CONCLUSIONS AND RECOMMENDATIONS

Our review of supervisory selection practices among Federal agencies indicates that, by and large, most agencies use the same general approach for evaluating candidates for first-line supervisory positions, and this approach is the same one they use to fill their nonsupervisory positions. Information gathered from officials at an agency representative of other agencies using this approach, as well as from onsite interviews at that agency, indicate that the approach seems to be working satisfactorily. Nonetheless, other indicators (e.g., comments from agencies responding to our survey and anecdotal evidence, and results of the earlier attitude surveys--the MSPB Merit Principles Survey and the nationwide survey of supervisors--discussed in a previous section of this report) strongly suggest that not everyone is completely satisfied with selection strategies in use and that certain situations may exist which call for other strategies.

Because of the diversity throughout the Federal sector in the work performed, organizational environments, and agency missions, it is highly unlikely that any one strategy for selecting first-line supervisors will be totally effective in meeting all needs. We have briefly discussed some of the circumstances which call for strategies other than those relying on documentation of previous training and experience. Certainly one may envision situations other than those we have described which also call for innovative selection strategies. However, we chose to present in this report the situations likely to be most prevalent.

Given some of the special selection situations we identified in this study, we strongly urge agencies to take a much closer look at their own strategies and determine if they are adequate for meeting their individual selection needs. We believe that many agencies fail to recognize the critical role of first-line supervisors in the organization's fulfillment of

its mission, and consequently do not devote the efforts warranted to appropriately fill these key jobs. Agencies that are experiencing organizational problems which may be related to the quality of their supervisors may especially wish to scrutinize their selection devices and consider alternatives. Finally, demographic projections which portend intensified competition for well-qualified workers¹³ make it all the more important that agencies select carefully and effectively from among a shrinking pool of candidates.

Some of the alternative strategies discussed in this report may assist agencies in improving supervisory selection efforts. In evaluating the adequacy of their supervisory selection systems, agencies should also be aware of some common factors we identified in the innovative systems we studied. Notwithstanding differences in approach, the following key factors appear to be common to the innovative systems we studied. Agencies can use these factors as a framework for closer examination of their existing supervisory selection systems.

- *Top management is visibly supportive of the system.* In several programs, the highest levels of management clearly play significant roles in the design and implementation of innovative supervisory selection systems. They are involved in approving the conceptual approaches and most importantly, they view the systems as an integral part of their human resource management plan.

¹³ A June 1988 Hudson Institute report, "Civil Service 2000," highlights important demographic issues facing the Federal Government in the 1990's.

- *The system meets organizational needs.* Contrary to some approaches which may be driven by administrative or procedural requirements of the personnel system, these systems leave the distinct impression that, while they exist in the context of the personnel system, the program is created by managers to meet managers' needs. This is not to imply that personnel office representatives play insignificant roles in these situations, only that they are involved in a much more active partnership with management than is generally the case in the design and operation of personnel programs.
- *The system is dynamic.* Although the systems studied were in different stages of implementation (some had just begun, others had been in operation for years), developers and administrators of each keep a close watch on the changing needs of those served by the systems, and modify the systems accordingly. Several have implemented formal procedures for obtaining feedback concerning operation of the systems. This feedback is used as an integral part of ongoing attempts to improve the systems.
- *The system uses a sound measurement approach.* The systems we studied acknowledge the criticality of the personnel management part of a supervisor's job and have developed ways to assess the requisite skills or potential in candidates. The systems emphasize comprehensive job analysis to identify required skills, knowledge and abilities and substantial involvement of subject matter experts in the selection process.

MSPB is also concerned that there has been no effective, systematic evaluation of how agencies are administering the one aspect of first-line supervisory selection that is mandated by law: supervisory probationary periods. Obviously, the framers of the Civil Service Reform Act recognized the critical importance of the first-line supervisor's job when they provided for this probationary period. The period was intended to serve as an important final test by which agencies could evaluate the effectiveness of their selection actions (and save themselves future problems caused by inappropriate selections). It can also enable agencies to evaluate their entire supervisory selection process. However, for these benefits to be fully realized, OPM must undertake a thorough evaluation of the use of supervisory probationary programs by Federal agencies. Such an evaluation would also help answer important questions raised by existing data on probationary failure rates. For example, is performance appraisal less rigorous during the supervisory probationary period and is that period really being used, as intended, as the final hurdle in the selection process?

On the research front, one aspect of supervisory selection systems which calls for further study is that of the quality of current first-line supervisors in the Federal work force. A Federalwide study could answer questions such as the following: Are first-line supervisors doing a good job? Are we getting the highest quality supervisors possible? Fundamental to these questions is the issue of whether individual agencies can really define what "good supervisory performance" means in their organizations. And, once defined, do they have any mechanism for accurately assessing good performance? As previously indicated, recent MSPB research on performance management has delineated problems with use of formal performance appraisals as accurate indicators of performance. Are other measures available to agencies for evaluating the quality of supervisory performance? If not, should OPM be providing agencies with tools to assess supervisory performance, or is this something individual agencies must develop for themselves?

Finally, during the course of this study, many agencies expressed the desire to learn more about innovative strategies available for selecting first-line supervisors. Agencies have a pressing need for a vehicle to exchange ideas and experiences in this area. We recommend that OPM exercise leadership in making better use of the existing Interagency Advisory Group (IAG) system as the means for identifying and disseminating information about effective alternatives in the critical area of supervisory selection.

Appendix 1

U.S. Marshals Service's Supervisory Selection System

The U.S. Marshals Service (USMS) employs a multi-phase assessment procedure for selecting first-line Supervisory Deputy U.S. Marshals. The first phase of its system consists of:

- A written application package (focusing on education, training, awards, and work experience) which is rated according to a previously established crediting plan;
- Annual performance appraisal ratings;
- A physical fitness assessment;
- A supervisory promotion appraisal rating (covering both technical and supervisory skills, abilities, and experiences); and
- A written job knowledge test.

In the second phase, candidates who have been determined to be highly qualified for a particular supervisory position participate in an assessment center.

Applicants interested in a particular supervisory position must apply to the system in order to be considered for the position. Scores from the five components in the initial phase are used to determine which candidates will complete the assessment center in order to be further considered for the position. As explained in the body of this report, the assessment center is designed to provide additional information to help selecting officials distinguish among highly qualified candidates for a position. Information concerning the candidates' performance in the assessment center is sent, along with the materials from the other components of the selection process, to a central selection committee, the Career Development Board. The Board reviews materials submitted, as well as any additional input concerning requirements for the position provided by the officials who have the vacancy. The Board then makes a final selection from among the candidates referred.

Appendix 2

Mine Safety and Health Administration's Supervisory Pool Program

This program, which was developed for the Supervisory Coal Mine Safety and Health Inspectors of the Mine Safety and Health Administration (MSHA), is predicated on the philosophy that candidates should be fully trained prior to being placed in supervisory positions. Candidates are selected for a supervisory development pool, and engage in a 1-year course of instruction which combines formal classroom training and on-the-job developmental assignments. Supervisory jobs in MSHA's 10 coal districts across the United States are subsequently filled by successful pool graduates.

The vast majority of applicants to the program meet basic qualification requirements, and panels of subject matter experts are used to further evaluate applicants against job-related factors. The top candidates from this process, the highly qualified group, go through a final evaluation phase which includes a panel interview conducted by three managers. Recently, MSHA added an assessment center to the final evaluation phase. (Since the current supervisory pool is the first to have experienced the assessment center, and they will not be candidates for permanent supervisory jobs until at least the end of 1989, MSPB did not examine MSHA's perceptions regarding the success of this new component.) The results of this final phase are used to rank the candidates for certification to the MSHA Coal Administrator, who makes all selections for the training program.

Candidates selected for the pool attend 26 weeks of technical and management-related classes at MSHA's National Mine Health and Safety Academy at Beckley, West Virginia. Classes at the Academy are generally divided into 4-week sessions, each followed by a 4-week field assignment. Evaluation tools such as examinations, exercises, and reports are used to monitor candidates' successful completion of each phase, with individualized coursework assigned to overcome identified weaknesses. Upon completing program requirements, successful candidates are placed on an unranked register and have the opportunity to be considered for vacancies as they occur.

A memorandum to pool members alerts them when a specific job is being filled. Interested members can request that their names be considered for the vacancy. If no members indicate interest when the vacancy is first identified, members of the pool are surveyed a second time to determine interest. If no candidates for the position are found in this second survey, the names of all members of the pool are submitted to the selecting official for consideration. Depending upon the location of the supervisory job, a selected candidate may have to relocate when accepting the job offer. Program officials have planned for this possibility by requiring signed mobility agreements from supervisory pool candidates before they can enter the 1-year training and development program.

Since inception of the program in 1984, MSHA has announced and filled three supervisory pool classes. (Class size and timing have varied based upon projected supervisory turnover, but generally the goal has been to graduate sufficient candidates to comprise a register which can be used for about 2 years.) Competition for this training and development opportunity has been keen; a total of 429 employees have applied, from which 72 have been selected for participation.

Appendix 3

**Federal Aviation Administration's
Supervisory Identification and Development Program**

In the early 1980's, the Federal Aviation Administration (FAA) designed a new system to identify, develop, and select employees for first-line supervisory positions in Air Traffic Control. A task force consisting of employees in the Air Traffic work force, as well as field and headquarters human resource management personnel, was established to develop the system. Initially, the system was tested in two regions, Northwest Mountain and Southwest, and covered only Air Traffic Control supervisory positions. The program has now been expanded to the national level and covers all of FAA's regions and includes other functional areas in addition to Air Traffic Control.

Between 1985-1987, in the two test regions, over 2,100 employees applied to the Supervisory Identification and Development Program (SIDP). During the initial administration of SIDP at the national level in 1988, over 5,900 employees applied. In all nine regions in which SIDP currently operates, all applicants for any first-line air traffic supervisor position must apply to the program (including current supervisors applying for different first-line supervisor positions). Applications for the SIDP are typically accepted once per year.

The identification and development process consists of three steps, as follows:

Step 1: Peer and Supervisory Assessment - The applicant submits the names of three to seven (depending on the size of the facility) co-workers (peers) at his or her facility who have agreed to rate the applicant on four performance dimensions: Leadership, Interpersonal, Communications, and Professional Competence. The applicant's immediate supervisor also rates the applicant on the four dimensions. (The applicant may also include one other facility supervisor as a potential rater in the place of one of the peers.)

Ratings made by the peers and supervisor(s) are combined on each dimension to produce one rating on each dimension and an overall rating. For each applicant pool (i.e., job series), applicants within the region are then ranked according to their overall rating. The top applicants within each pool are referred for the next step in the SIDP process. (The actual number referred for the next step depends on projected vacancies for the region and percentage of candidates expected to make it through the remaining steps of the SIDP process.)

Step 2: Skill-Based Interview - The Skill-Based Interview is actually a combination of face-to-face interview and simulation exercises in which candidates participate. The candidates' performance in the interview and exercises is rated by a trained panel of observers. The exercises are intended to simulate situations that candidates might actually encounter in the supervisory job. Candidates are given both verbal and written feedback concerning their performance in the Skill-Based Interview, including both strengths and weaknesses identified.

Step 3: Placement on a List - Candidates' performance on the Skill-Based Interview determines which one of three avenues they will follow in the SIDP process:

1) Candidates who perform very effectively are placed on an Eligible For Consideration (EFC) list. Lists are maintained in each region by an SIDP manager for the region. Each time a position becomes vacant, candidates on the EFC list are notified about the vacancy. All of those expressing an interest are referred in unranked, alphabetical order, to the selecting official for consideration. The selecting official receives a package of information on all referred candidates. The package includes the profile of peer and supervisory ratings, a report on the candidate's performance in the Skill-Based Interview, and developmental and work history information.

2) Candidates who perform at an ineffective level in the Skill-Based Interview are counseled on strengths and weaknesses, are encouraged to continue self-development, and may reapply to SIDP later. If interested, candidates are given assistance in determining ways to improve identified weaknesses.

3) Candidates who perform at a moderate level of effectiveness are referred to a candidate review board. This board then decides whether they should receive formal development, and using an Individual Development Plan, have priority in using training resources, or whether they should be encouraged to pursue self-development and reapply to SIDP later. The progress of candidates given formal development is followed by local personnel officials as well as the board. After these candidates have completed their Individual Development Plans, the board decides whether to place them on an EFC list, or to have the Skill-Based Interview panel reassess performance in areas previously identified as weaknesses.

Appendix 4

Department of the Army's
Civilian Career Evaluation System

In the early 1980's, the Department of the Army, in a joint effort with the Office of Personnel Management, began designing the Army Civilian Career Evaluation System (ACCES), an automated centralized candidate evaluation and referral system to be used in filling positions in its civilian career programs. While some other agencies have referral and selection systems which are centralized and have automated features, Army wanted to develop a computer-assisted evaluation system which could enable both sound measurement of applicants as well as ease and efficiency of operation. To meet this objective, Army conducted extensive job analyses for the job series they intended to cover under ACCES. The job analyses identified rating elements (knowledge, skills, or abilities--KSA's) to be used in the evaluation and referral process for these job series. The job analyses also identified rating elements to be used specifically when filling supervisory positions.

Jobs filled under ACCES are grouped according to career programs. The various job series included within a particular career program represent the functional areas covered by that field of work. For example, the Civilian Personnel Administration Career Program consists of job series such as GS-221 (Position Classification), GS-212 (Personnel Staffing), GS-230 (Employee Relations), and GS-233 (Labor Relations), each of which represents a function found in the personnel field. A separate inventory of rating elements exists for each of the career programs covered by ACCES, and each inventory includes KSA's identified for supervisory positions. Seventeen career programs will eventually be covered by ACCES; there are currently 6 career programs which are fully operational and comprehensive job analyses have been completed for 11 other programs which are scheduled for implementation shortly.

Each functional area within a career program has a set of "core" rating elements or criteria that must be used in evaluating applicants. Additionally, since duties for individual jobs within a career program can differ, the selecting official can identify other relevant rating elements to be used in filling a particular job. For example, when filling a Personnel Staffing Specialist job, the selecting official must use the elements established for the staffing function. However, the official may also include some elements established for the employee relations function, if they happen to be applicable to the job he or she is filling. Additionally, the selecting official has an opportunity to weight the importance of the rating elements which will be used in determining the referral scores for applicants who express an interest in the job.

An employee wishing to be considered for job referrals under ACCES must submit an application package containing ratings/documentation on the rating elements established for the specific career program. The following materials comprise the major components of the application package:

1. **Self ratings.** The applicant rates himself or herself on all of the knowledges identified as relevant to the career program.
2. **Supervisor's ratings.** The applicant's immediate supervisor rates the applicant on all of the knowledges established for the career program. The supervisor also rates the employee on all of the abilities identified as important for the career program.

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3. **Accomplishments.** The applicant writes brief summaries of personal accomplishments which exemplify the abilities identified as important for the career program. This documentation is evaluated (scored) by a panel of trained raters, who are unaware of the applicant's identity.

Therefore, each applicant has two sets of knowledge ratings (those provided by the applicant and those provided by the supervisor), and two sets of ratings on abilities (those provided by the supervisor and those based on the panel evaluation).

4. **Work/education/training history.** The applicant is given an opportunity to briefly describe past work, education and training experiences. This information is made available to the selecting official after the applicant has been referred for a particular position, in order to provide additional information on which to base the selection.

5. **Referral desires and geographic availability.** The applicant provides information concerning the types of jobs (i.e., job series and functional areas) and grades for which he or she wants to be considered. The applicant also indicates whether he or she is interested in supervisory positions. Additionally, the applicant is asked to note geographical areas in which he or she would accept a position.

All of the information provided by the applicant (except for the work/education/training history) is entered into an automated applicant data file. When there is a job vacancy to be filled, information concerning the job (e.g., job series, geographic location, rating elements and their respective weights) is entered into the ACCES computer. The computer compares this job information with applicant information which is already on file, in order to match interested applicants with the vacancy. This initial matching is done primarily on the basis of applicants' expressed interest in the type of position (i.e., job series, supervisory versus nonsupervisory), grade, and geographical location of the job being filled. Once the initial match is made, composite referral scores are computed on each of these matched applicants. An applicant's composite score is based on the two sets of knowledge ratings and the two sets of ability ratings which were previously mentioned. Since selecting officials tailor the rating criteria and their weights to each vacant position they fill, there is a high probability that an applicant's referral score will change from one vacancy referral to the next.

Selecting officials may request a list of candidates eligible for promotion, and one of two types of lists of candidates eligible for lateral (same grade) assignments. If a list of promotion eligibles is requested, the top candidates (based on their composite referral scores) are alphabetically placed on a list that is sent to the selecting official. (The number of top candidates to be referred varies among career programs, and ranges between 10 and 50 candidates.) Depending upon the type of lateral list the selecting official has requested, he or she receives either a list of all applicants eligible for lateral assignments, or a list of only the top applicants (based on their composite scores). Regardless of the type(s) of list(s) requested, a printout of the ratings on the relevant elements and the work/education/training history form for each referred candidate accompanies the referral list.

Candidates are notified by mail to their home or office addresses that they have been referred for a particular job. They are asked to indicate to the personnel office servicing the organization with the vacancy whether they are interested or not interested in the specific vacancy. After the selecting official learns of who on the list is interested in the vacancy, he or she reviews information received on each candidate, and may choose to conduct follow-up interviews (in person or by telephone) or ask for other information (e.g., copies of previous performance appraisals) before making the final selection.